

Changes in accountant's job description due to digitalisation: Case company VTP Oy

Jenna Maukonen

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| Author(s) Jenna Maukonen | |
| Degree programme International business | |
| Report/thesis title Changes in accountant's job description due to digitalisation: Case company VTP Oy | Number of pages and appendix pages 36 + 5 |
| <p>The aim of this thesis is to research the changes in accountant's job description due to digitalisation specifically in case company. One goal is to find out how the future of the accounting industry will look like. The writer of the thesis will present the accountant's role in the past and nowadays. The thesis discusses advantages and disadvantages of digitalised financial management. Also, the future of the accounting industry is discussed.</p> <p>The theoretical framework explains traditional accounting and digitalised financial management. It also discusses accountant's profession, accounting in general and the future of the accounting industry.</p> <p>The topic is researched in three phases. Both qualitative and quantitative research methods are used. In quantitative research approach the respondents are accountants working in the case company. For qualitative approach the respondent is person representing the case company. The third phase was conducted by using desktop method for data collection.</p> <p>The results of the thesis are how accountant's job description and accounting industry has changed and how will they possible change in the future. Recommendations are ways to adapt to the changes that will happen in the future.</p> <p>The results are that accounting industry is changing and demanding more from accountants.</p> <p>The recommendation for accountants and students studying accounting is that they should be able to adapt to changes and want to learn new continuously. In the future accountants should have skills in customer service, analysing and ICT. Accounting firms should find ways to create added value for customers and offer training for employees. Added value for customers can be created by offering good and proactive customer service and by offering consulting services that compliment current accounting services offered to customers.</p> <p>The case company is Vähittäiskaupan tilipalvelu VTP Oy. It is an accounting firm based in Finland focusing mainly on accounting for K-group's companies.</p> | |
| Keywords accounting, digitalised financial management, digitalisation, job description, accountant | |

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1 Introduction

This thesis is written as a part of Bachelor's Degree Programme in International Business. It will discuss accountant's job description and how it has changed due to digitalisation and how it can change in the future.

The first chapter introduces the topic and the case company. It presents the investigative questions and how the topic is researched. Couple key concepts related to the topic are explained and in addition benefits and international aspect are discussed.

The second chapter explains the theoretical framework related to the thesis topic. It presents the accountant's job description and areas of accounting. It also discusses digitalised financial management and the benefits and disadvantages of it. Future of the industry is the last part of the theory chapter.

The third chapter is the empirical part. It explains the research design and how the research is conducted. The second subchapter discusses results of the research phase by phase. The results are presented and analysed in detail.

The last chapter is the discussion. It discusses the reliability and validity of the research. It also presents possible follow-up research, recommendations and the writer's own reflection of learning.

1.1 Background

The writer of this thesis has specialised in financial management. The thesis is focused on the changes in accountant job description and the future of accounting industry.

Accounting industry has changed continuously and one of the drivers for change has been digitalisation. It has automatised processes and diminished manual work which has caused the change in accountant's job description.

This topic is researched because it is important to understand how accountant's job description has changed and what effects does it have on the job. The results can give future scenarios for accounting industry which can help accountants and accounting firms but also students studying accounting to adapt to the future.

1.2 Thesis topic

The thesis is focusing on accountant's job description and digitalisation. The research question and investigative questions are presented below.

Research question (RQ):

"How accountant's job description has changed due to digitalisation?"

Investigative questions (IQ):

- IQ 1: How digitalisation has changed accounting industry?
- IQ 2: What are the advantages and disadvantages of digitalised financial management?
- IQ 3: How will the accountant's job description change in the future?

The overlay matrix (Table 1) shows the investigative questions and theoretical framework, method and results related to each question. The theoretical framework for the first investigative question is about accountant's job description before and how it has changed during the past decades. The research methods are desktop, interview and survey. The results are the data from the questionnaire, interview and desktop research.

The theoretical framework for the second investigative question is how digitalisation has changed the financial management industry. The research methods are desktop, interview and questionnaire. The results are the data from the questionnaire, interview and desktop research.

The theoretical framework for the third investigative question is the future of financial management industry. The research methods are the same as for the other investigative questions. The results are the data from the questionnaire, interview and desktop research but also conclusions of the research and recommendations.

Table 1. Overlay matrix.

| Investigative questions | Theoretical framework | Method | Results |
|--|--|-----------------------------------|---|
| IQ 1: How digitalisation has changed accounting industry? | Accountant's job before (history) versus accountant's job nowadays | Desktop, Interview, Questionnaire | Data |
| IQ 2: What are the advantages and disadvantages of digitalised financial management? | Digitalised financial management | Desktop, Interview, Questionnaire | Data |
| IQ 3: How will the accountant's job description change in the future? | Changes in the financial management field in the future | Desktop, Interview, Questionnaire | Data, Conclusions of the research and recommendations |

1.3 Demarcation

The writer of the thesis is focusing on accountant's job description in Finland and specifically in one accounting firm Vähittäiskaupan tilipalvelu VTP Oy. The research will give results on what accountant's job description is nowadays and how the job description might change in the future and how accountants can prepare for the changes. The timeframe is couple past decades because that timeframe is sufficient to give a view how digitalisation has changed the accounting industry.

1.4 Case company

Vähittäiskaupan tilipalvelu Oy (later VTP) is an accounting firm based in Finland focusing mainly on accounting for K-group's companies. Company's turnover was 9,2 million euros and there are approximately 110 employees in the company. VTP has been offering accounting services since 1960. At the time the company was called K-tilipalvelu. In 2000, it

became independent ltd. and the name changed into Vähittäiskaupan tilipalvelu Oy, VTP. (VTP 2016)

VTP Oy is Kesko's subsidiary and owned by Kesko Oyj, K-kauppiasliitto and Vähittäiskaupan Takaus Oy. There are 9 service units of VTP operating in different parts of Finland. The services are mainly produced geographically near the customers. The company wants to offer different services ranging from monthly accounting and taxation to analysing the financial data in order to guarantee a complete service packet. (VTP 2016)

1.5 International aspect

Digitalisation is an international phenomenon that causes change in accountant's role. Accountant's job description is changing all over the world and the results may apply also in other countries and not only in Finland.

1.6 Anticipated benefits

This thesis benefits students who are aiming at a career in accounting. It is helpful for them to understand the job description and what is required from them. This thesis benefits accountants because they can think more deeply their role in the job so that they can improve themselves and prepare for the future changes.

It is also beneficial for managers and CEO's in accounting firms. They should know how the industry changes and what they can do to adapt to the changes in order to be successful in their business operations.

This thesis can benefit also schools teaching financial management. They can think what skills they should teach so that the students are more prepared for work life.

1.7 Key concepts

The next two subchapters present two key concepts, digital financial management and digitalisation, which are related to the thesis topic.

1.7.1 Digital financial management

There are several definitions for digitalised financial management. It was defined as paperless accounting but the definition is quite narrow and outdated. Digitalized financial management is handling all the information flows and accounting processes in digital form. According to Lahti et al, automatised financial management is the most descriptive word for digitalised financial management. (Lahti, 19)

The change from traditional financial management to digitalised financial management began approximately in the 1990's. In 1997, the legislation was changed and paperless accounting was enabled. The change is still an ongoing process and accounting firms are in different stages of digitalised financial management. (Lahti, 22)

1.7.2 Digitalisation

"Digitalisation is integration of digital technologies into everyday life by the digitisation of everything that can be digitized." (Business dictionary)

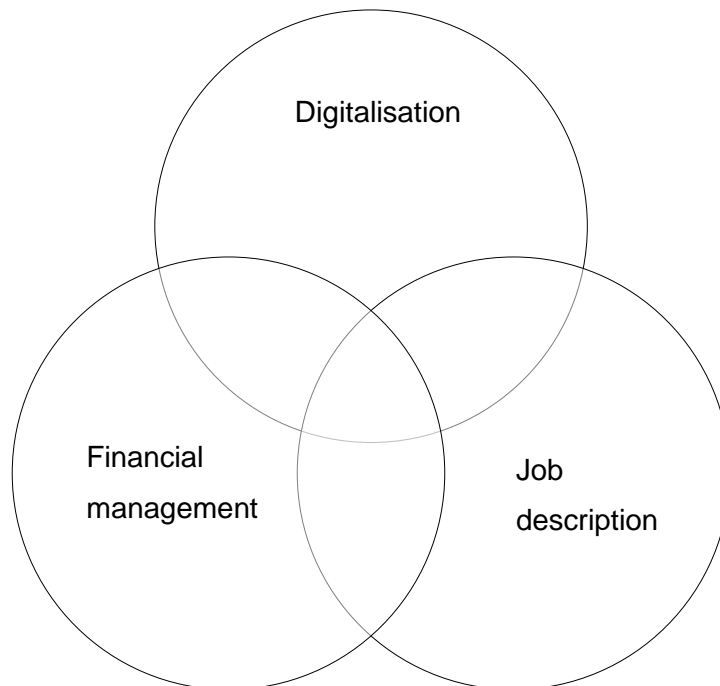
Digitalisation means handling the information in electronic form and moving and storing and showing it. Usually the information is in different databases. Information in digitalised form is usually easier and more effective to process than information in physical form such as paper. (Lahti, 19)

2 Theoretical framework

The theoretical framework presents the theories related to the thesis topic. It discusses accountant's job description, accounting, digitalised financial management and future of the accounting industry.

The conceptual image of the theoretical framework (Table 2) shows how three main concepts digitalisation, financial management and job descriptions are linked together.

Table 2. Conceptual image of the theoretical framework



2.1 Accountant's profession

Accountant is working with accounting, billing and accounts ledger. The job description can vary between different employers. Usually accountant works in accounting office or in different firms or organizations. (Mol) In accounting office accountant can be responsible of his or her customers' accounting, closing the books, taxation, budgeting and payroll. (Ammattinetti)

There are few different qualifications and skills accountant should have (Table 3). Accountant should be accurate, organised and customer service oriented (Mol). Because the field of the business is quite sensitive, accountant should also be trustworthy. Knowledge of different office programs and accounting programs is needed. The field is in constant change and one needs to update the knowledge continuously. The knowledge of legislation concerning the field is important to manage the job correctly. (Ammattinetti)

Table 3. Required qualifications and skills from accountant.

| | | |
|-------------------------|--------------------------|---------------------------|
| Accurate | Organised | Customer-service oriented |
| Trustworthy | Knowledge of legislation | ICT-skills |
| Knowledge of accounting | Ability to learn new | Adaptability |

One can become accountant after graduating from vocational school and having qualification in business and administration. One can study also in university of applied science business economics. In more demanding accounting jobs there can be also employees who have graduated from university and have master's degree in economic sciences. (Ammattinetti)

2.2 Traditional accounting

Traditional accounting means that one document is processed many times and many people are handling it in turns. The customer is processing the document and after that the document is sent to the accounting office where it is processed again. The job is done twice which makes it inefficient and it costs more for the customer. (Helanto, 12)

Traditional accounting might be challenging for the accountants. The work can begin only after customer has given all the receipts, bills, bank statements and documents related to the period. Also, all the customers deliver the documents approximately at the same time.

This might cause problems with the deadlines. All in all, traditional accounting is not very cost-efficient. (Helanto, 13)

2.3 Digitalised financial management

As mentioned earlier digitalised financial management means processing all the information flows and accounting processes in digital form. According to Lahti et al, automated financial management is the most descriptive word for digitalised financial management. (Lahti, 19)

There are advantages and disadvantages in digitalised financial management. In the table below, there is a summary of these (Table 4). The advantages and disadvantages of digitalised financial management are presented more in detail in the next two chapters.

Table 4. Advantages and disadvantages of digitalised financial management.

| Advantages | Disadvantages |
|---------------------|---|
| Speed | Learning new programmes |
| Efficiency | Some customers against digitalisation |
| Ecological solution | Security threats |
| Decreasing mistakes | Requires development actions |
| Transparency | Possible challenges among the personnel |

2.3.1 Advantages of digitalised financial management

Digitalised financial management has many advantages over traditional accounting. Because of automatisisation the efficiency and speed are growing. The need for physical archiving space is diminishing. The quality and transparency of the actions are improved and digitalised financial management decreases errors. Digitalised financial management can also be seen as ecological solution. Typically, organizations who have started to use digitalized financial management have improved their efficiency by 30-50%. In some process the improvement can be even 90%. (Lahti, 32) It was not mentioned how this was measured in detail but the efficiency comes probably from improving efficiency in different processes.

The speed of digitalised financial management can be seen for example in the speed of accounting and reporting. Digitalised financial management has made real-time reporting possible. This helps the companies to lead the operations based on real-time information and companies can react to changes faster. (Lahti, 33) For instance, nowadays the books for the reported period can be closed even during the first week of the next month. Before this was not possible because accountant needed to wait for documents from the customer. (Lahti, 159)

Digitalised financial management decreases errors because different systems and connections are handling most of the work. On the other hand, this also requires that the integrated system is working properly. (Lahti, 32)

Digitalised financial management is more environmentally friendly option than traditional financial management where physical paper is used. Digitalised financial management helps to save the nature by affecting the movement, paper usage and transportation. (Lahti, 33)

Digitalisation has made telecommuting possible in accounting industry. The work can be done anywhere if one only has computer and access to Internet. (Lahti, 32)

2.3.2 Disadvantages of digitalised financial management

The change from traditional accounting to digitalised accounting requires that the accountants learn new ways of working. Interaction with the customers increases so the accountant must be prepared for customer service aspect in his/her work. (Helanto, 17)

When changing to electronic accounting one needs to learn new programmes. Accountant should have good information technology skills so the learning and adapting to new programmes is easier. (Helanto, 17)

One challenge might be that the customers are against the digitalised financial management. They might not see the advantage in it. That is why accounting firms should also think ensuring the service for these customers in a traditional way or otherwise they might lose customers. (Helanto, 17)

According to Ey's report on megatrends digitalisation can bring challenges such as privacy concerns and cybersecurity threats (Ey). Accounting firms should ensure the security of electronic materials.

2.4 Accounting

Accounting consists of different parts such as purchase ledger, journey ledger, money transactions system, project calculations, payroll, inventory and production, fixed assets, accounts receivable and billing (Table 5). All the mentioned parts need to be archived and reported. (Lahti, 17)

Table 5. Parts of accounting (Lahti, 17).



In Finland, the obligation of accounting applies to all self-employed persons. Only business activity is recorded in the accounting. The private economy needs to be separated from the business activity. Taxation is based on the accounting. (Vero)

In VTP Oy the accountants are responsible for their customers accounting, reporting, archiving and taxation. These are explained more deeply in the next chapters. The accountants do not take care of the payroll, purchase ledger, journey ledger, billing or accounts receivable. Other employees or customers themselves are responsible for these processes.

2.4.1 Managerial accounting

Usually small and medium sized enterprises have limited resources. In traditional accounting, it is hard to follow company's actions in depth. For instance, if the company would like to have information about different cost allocations. In electronic accounting, it is easy to allocate the costs to different cost allocations and the process of cost allocation can be automatized. The customer benefits the electronic accounting because they can follow different cost units easily and accountant can give them information how to read the reports. (Helanto, 50)

2.4.2 Reporting

In traditional accounting reports are usually in paper form or in pdf form. It does not enable to look up the documents related to the report immediately. In e-accounting bookings are made to the system that also provides reports. Then it is possible to see the bookings made from the report. (Helanto, 50)

Accountants used to be recorders but digitalisation is changing the job description towards professionals of information analysing. The information is made into the form where it is easy for decision makers to use. This gives new dimension to the accountant's job. (Helanto, 51)

Part of the reporting process is delivering the documents to different stakeholders for example to the government. It has been estimated that the companies in Finland can achieve savings totalling even 250 million euros per year if they deliver the documents through automatised process electronically. (Lahti, 175) It was not specified how they

have calculated this number but the assumption is that number has probably been calculated by estimating the costs of paper reporting and comparing it to the costs of automated reporting.

2.4.3 Archives

In traditional accounting, all the documents are in physical form such as paper. All the documents are then archived in folders. In electronic accounting the documents such as bills and bank statements are archived automatically into electronic archives. This makes it easier to search for older documents when the information can be found in one place and the search conditions can be used in a versatile way. Electronic archives are also cost effective because the accountant can find the documents easily and he or she does not need to use much time to search for documents that the customer wants to look. (Helanto, 52)

2.4.4 Taxation and other government notifications

Usually different government notifications are giving the deadlines for accountants. The period must be ready before the day when VAT is paid. In traditional accounting the information for the month prepared is got when the month is nearly ending or even later if the customer is not punctual. This causes that the work load is bigger near VAT day. Electronic accounting gives more flexibility because most of the information is in real time. The work is usually ready already during the next month and the customer can have information about the previous month quicker so they can adapt to changes in a faster pace. (Helanto, 51)

Most of the government notifications can be filled and sent in electronic form. For instance, VAT notifications can be made electronically. In some cases, one needs to fill in a form but in some cases, it is possible to transfer the information directly from accounting software to tax officials. (Vero)

2.5 E-invoices

E-invoices are a part of electronic financial management. It is a cost-efficient way to send and receive invoices. Invoices in electronic form can be easily transferred to bookkeeping and invoices archive automatically. E-invoices decrease the amount of manual work and

are also eco-friendly solution. The number of mistakes can be decreased using e-invoices. Companies are moving towards using more e-invoices instead of paper invoices but one problem with e-invoices is that not all companies use it. (Yrittäjät)

In one of the case examples in the book “Digitaalinen taloushallinto” a company operating in service sector decreased the time spent handling the invoices by even 80% because they moved from manual work to electronic process. (Lahti,71)

2.6 Future of accounting industry

According to Tilastokeskus there were 4295 firms and 12 283 persons working in the accounting industry in Finland in 2015. Total revenue of the industry was 958M euros and the revenue per employee has grown during the past 15 years (Figure 1). (Taloushallintoliitto)

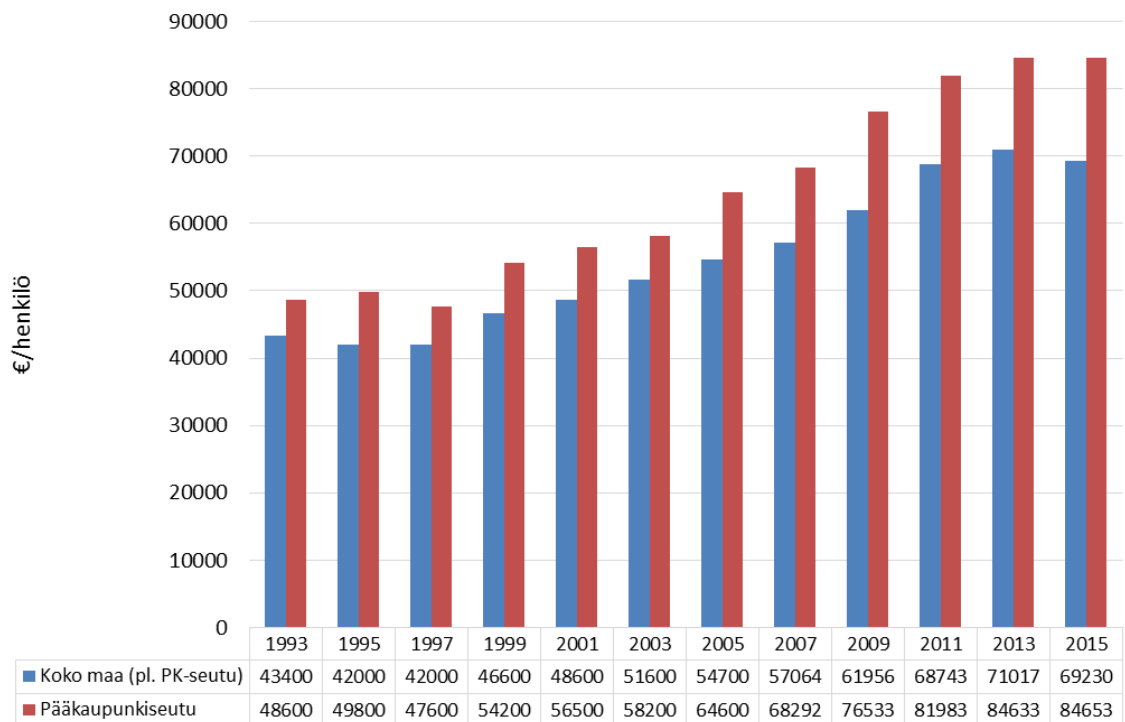


Figure 1. Development of revenue/personnel key ratio.

According to the article in Talousplus accounting industry is more and more relied on electronic programmes. Routine tasks are automatised and accountants work is more about advising the customers and analysing the information. Digitalisation has made telecommuting made possible. (Talousplus)

There has been conversation that accountant is a profession that is going to disappear because of automatised processes and digitalisation. The jobs might diminish but accountants are still needed for analysing the data. Data analysing can be complicated and it demands specific know-how about certain issues. (Talousplus)

The change from just being recorders into analysers and advisors demands more studies for accountants and students entering the professions. By insuring the growth of required skills of the employees, new types of accounting services are made possible. The future of accounting industry depends on how people working in the industry adapt to changes and are they ready to invent new business practices. If digitalisation is seen as an advantage, it might bring even more business to the industry instead of being shrinking industry. (Talouselämä)

The change to digitalised financial management is seen also in the service markets of financial management. Consolidation is happening in the accounting firm markets. The bigger accounting firms are growing rapidly but the smaller firms might have some challenges in offering renewed electronic service. Still, digitalisation has offered new possibilities, service models and concepts to the field. (Lahti, 31)

3 Empirical part

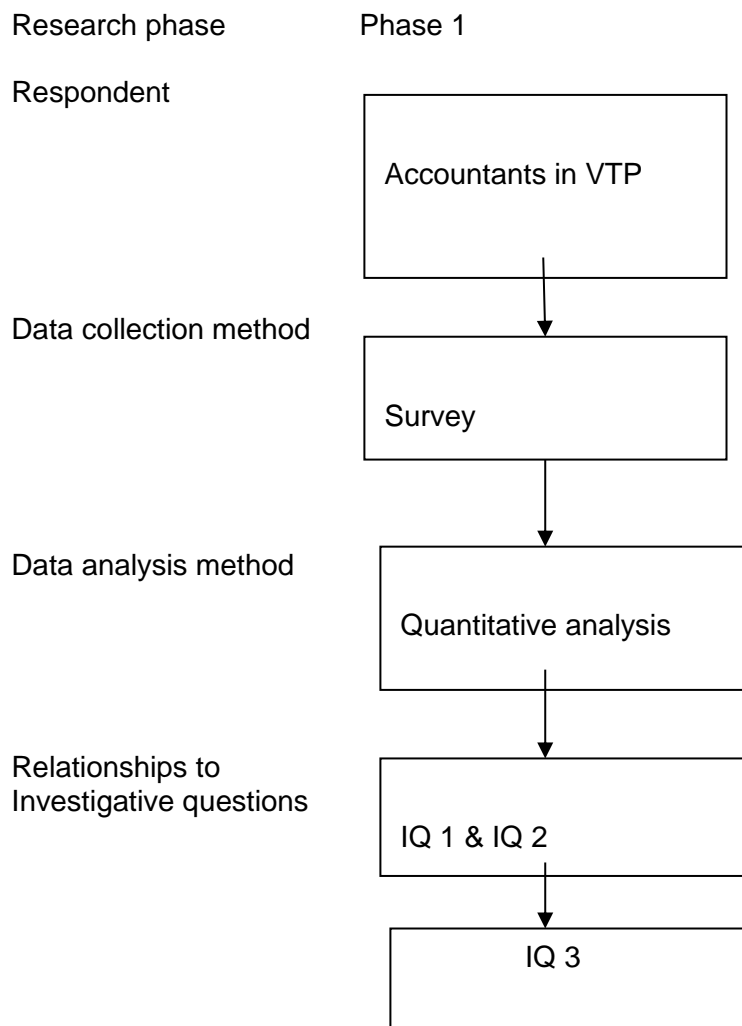
The empirical part of the thesis presents research design and possible risks and risk management related to the research. Results of the research are discussed and analysed phase by phase.

3.1 Research design

The research approach is going to be both qualitative and quantitative. The use of both methods is justified. The phase 1 of the research is aimed at quite a large sample because the writer of this thesis wants to research accountants' own point of view to their job. It is easier to analyse the data if the research approach is quantitative. On the other hand, qualitative method is more suitable for phases 2 and 3 of the research because there are only couple respondents and it is easy to analyse the data using qualitative method. Also, qualitative research method gives better understanding to the topic and can explain reasons behind the data received in the phase 1.

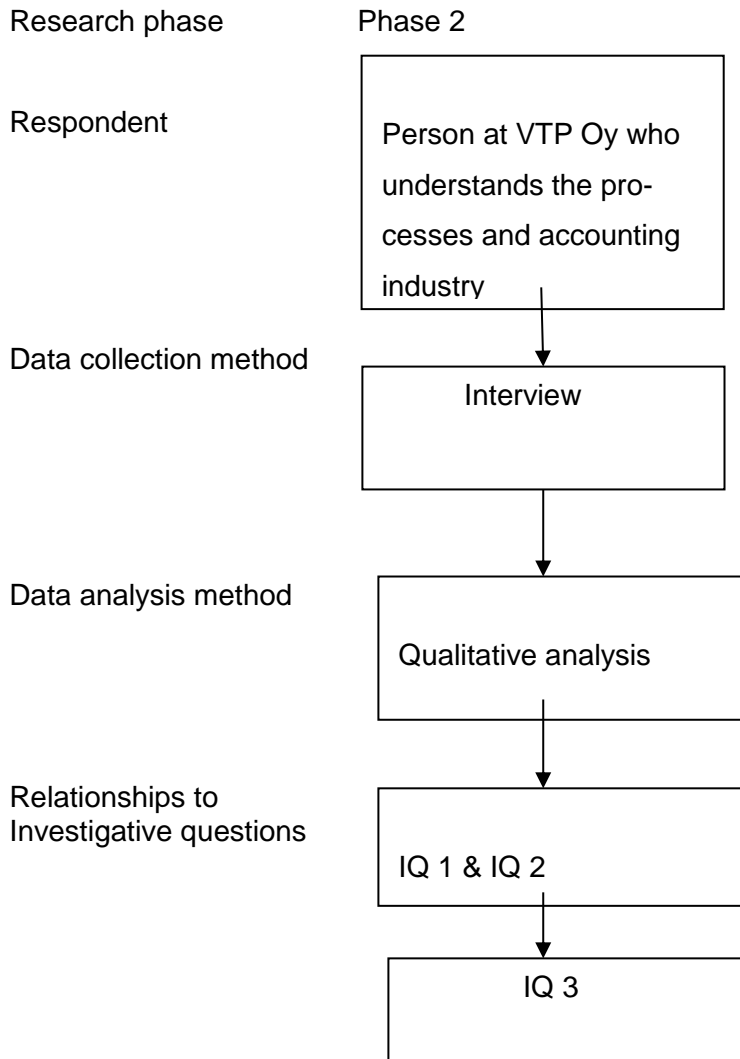
The respondents for the phase 1 are accountants in VTP Oy. Respondents were chosen because it is research how accountant's job description has changed due to digitalisation and how accountants understand their own job description. The data is collected in survey method. The survey method is used because there are many respondents and afterwards it is easier to process the data. Data is analysed in quantitative method. There needs to be a motivator for the respondents so it is possible to get more responses. It can be motivational if they can get the results and recommendations. The research gives answers to all investigative questions. (Table 6)

Table 6. Research design of phase 1.



In the second phase of the research the respondent was chosen because he has knowledge of the accounting industry for several years. He can also tell more about upcoming projects in VTP Oy that deal with electronic accounting. Data is collected in interview method because the questions are open questions. Qualitative analysis is used when analysing the data because there is only one respondent and open answers. The research answers to all research questions. (Table 7)

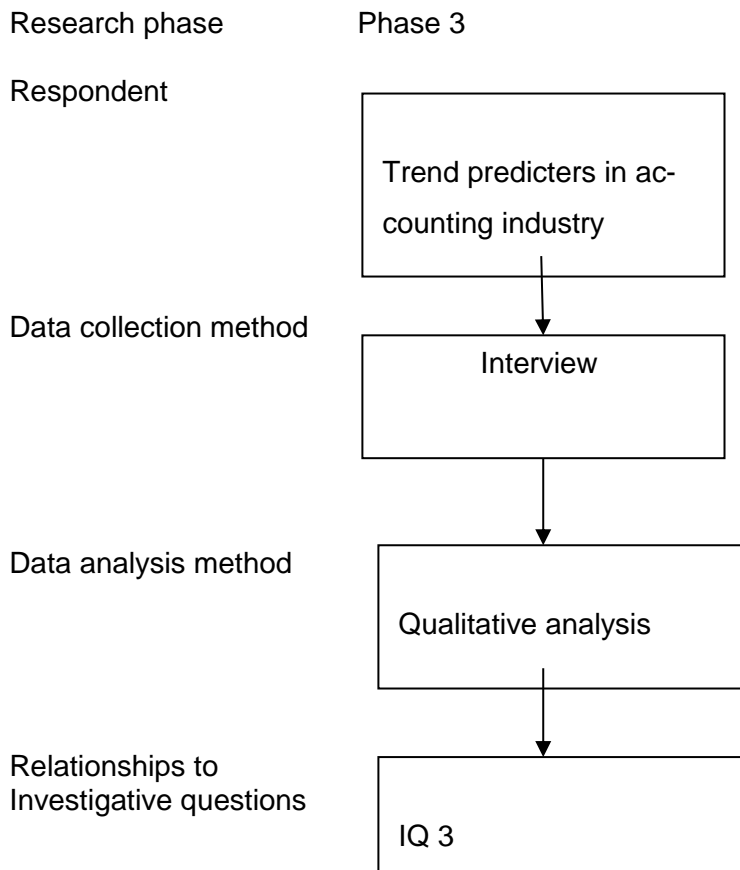
Table 7. Research design of phase 2.



In the third phase of the research the respondents are people working in the accounting industry who are leads in the development of the field. They have knowledge of the accounting industry for several years and possibly have some view of the future of the field. Data is collected in interview method because the questions are open questions and interview allows the researcher to ask more during the interview. Email is the option only if the respondent is not close or is too busy to meet. Sending the questions to respondent also gives more time for respondent to answers the questions. Qualitative analysis is used

when analysing the data because there are only couple of respondents and open answers. The research answers to investigative question number three. (Table 8)

Table 8. Research design of the phase 3.



3.2 Risks and risk management

It is a risk to find enough interviewees and respondents. Spring is usually busy time at accounting firms so the possible respondents might be too busy to answer questionnaire or interviews. This risk is managed in the phase 1 by keeping the questionnaire short and reminding the respondents to answer the questionnaire.

Also, because the writer of this thesis was working in the case company, it is probably easier to get enough answers for phases 1 and 2 which are aimed to the case company.

The biggest risk is phase 3 because the respondents are unknown to the writer of the thesis and they are harder to reach. This risk is managed by having a back-up plan to change the data collection method to desktop instead of interview.

3.3 Results

The results part is divided into four subchapters. First subchapter explains the results of the quantitative research. The second subchapter discusses the results of quantitative research conducted for VTP Oy and the third subchapter shows the results for the quantitative research conducted for other accounting firms about the future of the industry. The last subchapter is a short summary of the results.

3.3.1 Phase 1 of the research

The quantitative data was researched by using google forms survey. The questionnaire was tested by two people to ensure that the questions are understandable and the questionnaire functions well. Couple changes were made to the wording in the questionnaire after the test. The survey was sent to the accountants at VTP Oy by email with cover letter and the results were gathered during 20.3.2017 – 4.4.2017. The questionnaire consisted of 10 questions. 9 out of 10 questions were close-ended questions and there was only one open-question.

The questionnaire was sent to all 100 accountants at VTP Oy and it received answers. It was possible to calculate the response rate. The response rate was 65% which exceeded the expected response rate. The results were analysed by using quantitative method.

The questionnaire included first four background questions about age, gender, education and how long the respondent has been accountant.

Age was divided into five categories: under 25 years old, 26-35 years old, 36-45 years old, 46-55 years old and over 55 years old. Majority (43,1%) of the respondents were 26-35 years old. 24,6% of the respondents were 46-55 years old, 15,4% were 36-45 years old, 9,2% were under 25 years old and 7,7% were over 55 years old. (Figure 2)

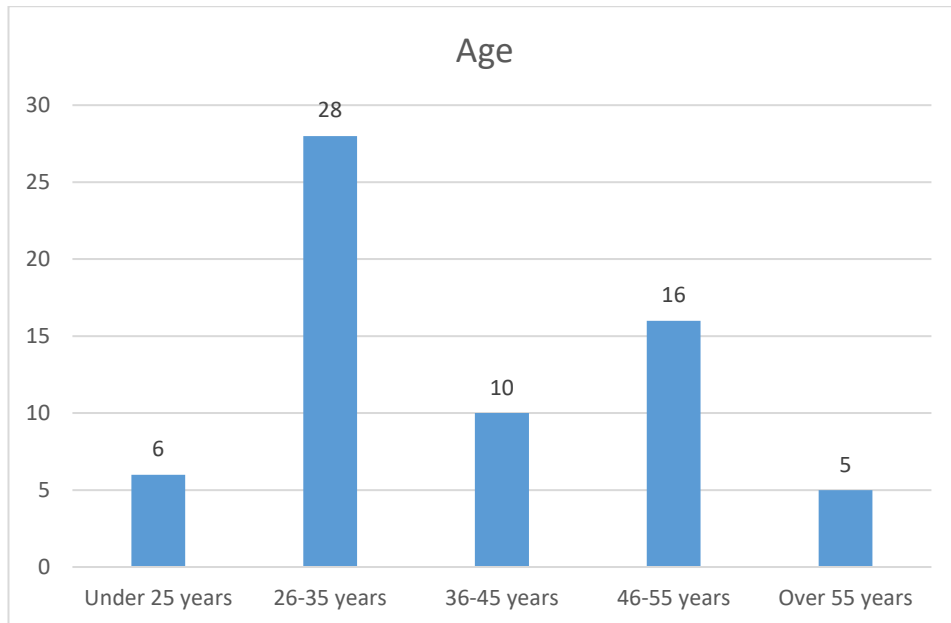


Figure 2. Age of respondents. (N=65)

16,9% of the respondents were male and 83,1% were female. There are all in all more women than men working in VTP Oy so it is likely that this can be seen also in the results. (Figure 3)

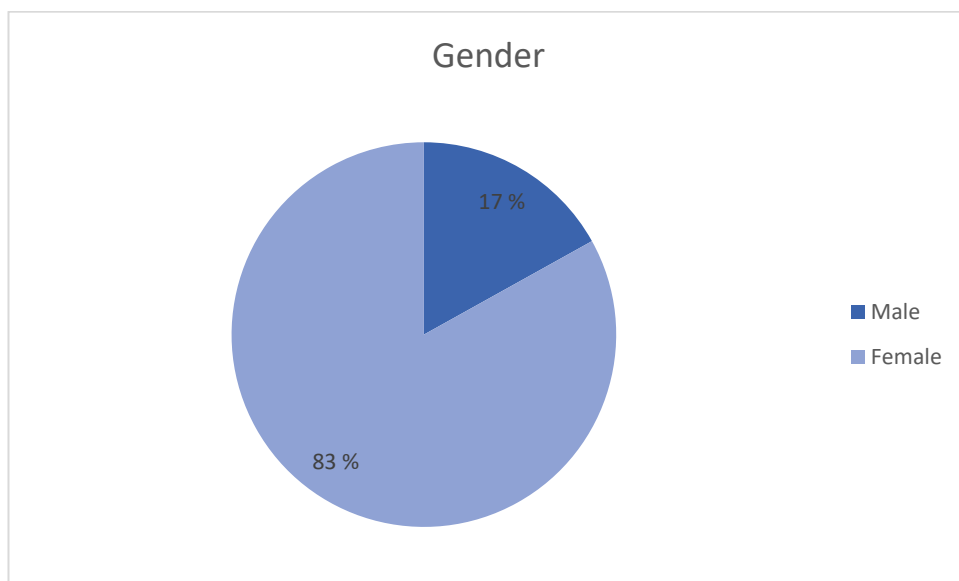


Figure 3. Gender of respondents. (N=65)

The education was divided into categories: vocational qualification in business and administration (merkonomi), bachelor of business administration (tradenomi), bachelor of economics (kauppateiden kandidaatti), master of economics (kauppateiden maisteri) and

other. Most of the respondents were graduated from vocational school qualification in business and administration or they were bachelor of business administration. (Figure 4)

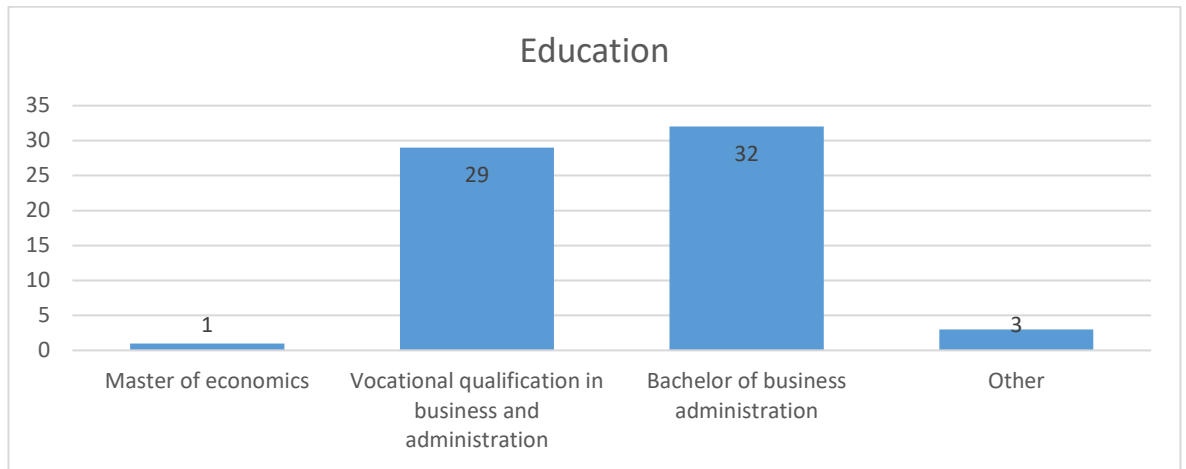


Figure 4. Education of respondents. (N=65)

The last background question was how long have you been accountant. The alternatives were under 5 years, 5-10 years, 10-15 years, 15-20 years and over 20 years. Third of the respondents had been accountants under 5 years. The second biggest groups had working experience as accountants for either over 20 years or 5-1 years. The smallest groups by 12,3 % were 10-15 years of work experience as accountant and 15-20 years. (Figure 5)



Figure 5. Working experience as accountant of respondents. (N=65)

The fifth question was how important you think that the following skills or qualities are in accountant's job. The scale was from 1-4. Number 1 was not at all important, 2 was slightly important, 3 was important and 4 was very important.

Accuracy, precision, credibility were all ranked as important or very important. These were skills that were ranked as important also in the theory part of the thesis.

Flexibility and being organised were mostly ranked as very important or important but minority said that those are only slightly important qualities.

The legislation related to the industry and analysing skills were considered important or very important. This skill was mentioned as one of the skills accountant should have in the theory part.

It was a bit surprising that customer service skills were ranked as more important than information technology skills even though approximately half of the respondents said that electronic financial management has caused problems because lack of information technology skills.

The respondents answered that absorbing new is important or very important in accountant's job. Because the industry is in constant change, this result was quite expected.

Most of the respondents answered that sales skills are not at all important or only slightly important in accountant's job. Sales skills are not required from the accountants working at VTP Oy at least nowadays and probably sales of the services are done by other people in the organization.

Approximately fourth of the respondents said that working experience from the field is not at all important or only slightly important. It was interesting that there was no strong correlation between the age or working experience in the answers.

Closing the books was considered as important or very important skill. This answer was quite expected because closing the books is one of the key task that accountants do.

Approximately third of the respondents answered that social skills are only slightly important in accountant's job. This was little surprising because the accountants in VTP Oy

are keeping in touch with the customers quite a lot and it could be expected that good social skills would help when dealing with the customers.

Majority of the respondents answered that language skills are not at all or slightly important. Most of the customers and material in VTP Oy is in Finnish so this might affect the answers.

Tolerating the stress was considered important or very important quality. The result was quite expected because accountant's job can be quite hectic sometimes and one needs to have good tolerance of stress during the hectic times.

Most of the respondents said that having education for accountant is important or very important. Almost all of the respondents had education background in business administration or economics which might affect the answers in a way that the respondents also value their education and see it as important asset.

All in all, there were few skills and qualifications that accountant should have according to the phase 1 of the research. The most important skills and qualifications are presented in the table below. (Table 9)

Table 9. Summary of important skills and qualifications accountant should have according to the research phase 1.

| | | |
|-------------|-----------------------------------|---------------------|
| Accuracy | Legislation related to accounting | Closing the books |
| Precision | Analysing skills | Tolerance of stress |
| Credibility | Ability to absorb new | Education |

The sixth question was have you teleworked. Teleworking has been possible for all accountants in VTP Oy since 2016. 58,5% of the respondents had teleworked. The result was quite surprising because I would have expected that more had teleworked. It would be interesting to know why accountants have or have not teleworked. (Figure 6)

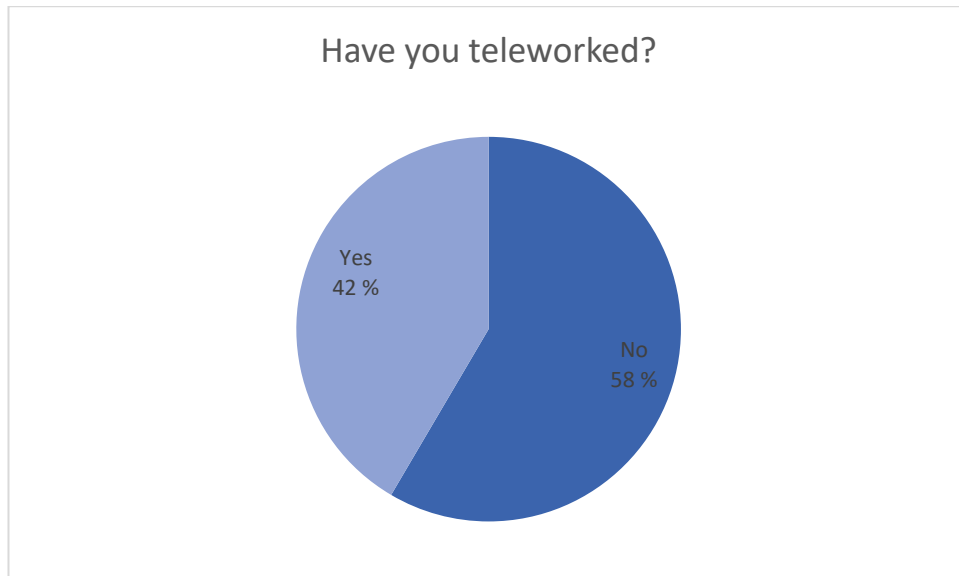


Figure 6. Respondents' experience in teleworking. (N=65)

The seventh question was has electronic financial management caused challenges for employees. Half of the respondents answered that it has caused somewhat problems. This indicates that moving from traditional accounting towards digitalised financial management is not always easy. (Figure 7)

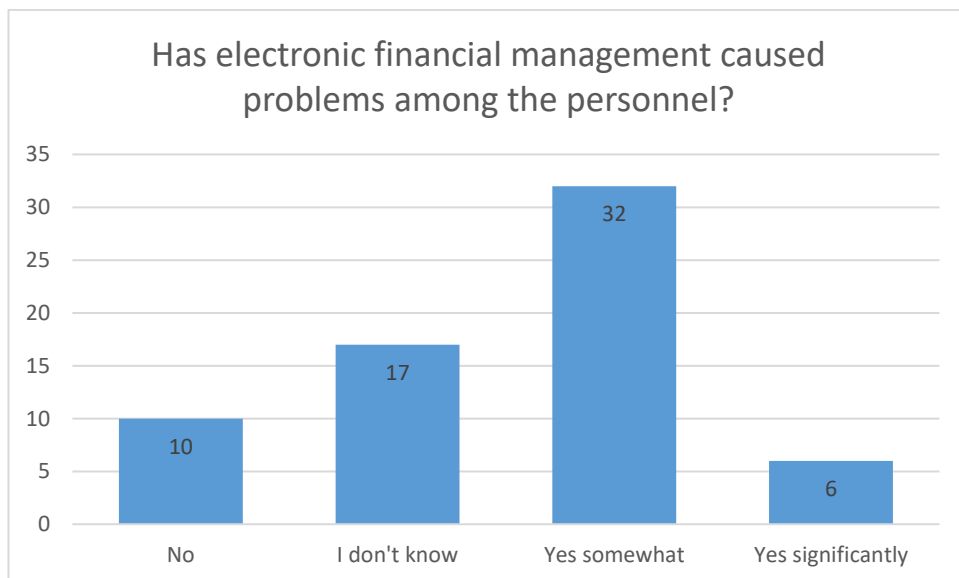


Figure 7. Problems of electronic financial management among the personnel. (N=65)

The eighth question was open-question linked to the previous question. If the respondent had answered to the previous question that electronic financial management has caused problems among the personnel, the respondent was asked to describe the problems. It was voluntary to answer this question.

Some problems occurred in the answers often. The main problems seemed to be lack of proper information technology skills. It was mentioned that these problems usually concern older employees. Some hoped more training and instructions for this.

Some of the respondents mentioned that if one has worked in the accounting industry for several years, it is hard to learn new things and get used to new things. Another problem was that the programmes do not always work as they should. This causes problems in planning your own work because you cannot be sure if you are able to do what you planned to do.

It was interesting that the respondents mentioned that one problem was resolving the errors in accounting caused by electronic financial management. Even though electronic financial management should make the work faster and easier, it can take time to resolve the mistakes and it can be harder to find the mistakes because you yourself have not made the booking related to the mistake. This is also linked to the answers in which the respondents said that before they made all the bookings but nowadays there also many other people recording the bookings to one's customer.

One respondent mentioned that the technical problems caused by electronic financial management can cause problems in credibility. As mentioned before accounting industry is quite delicate and the customers should be able to trust the accountant so credibility problems should be taken seriously.

Some of the respondents said that one problem is that the work is getting borer because it is more and more searching for mistakes from the data that is transferred directly to bookkeeping.

The ninth question was do you believe that you are working as accountant in ten years' time. Most of the respondents answered either yes or maybe. This might indicate that accounting is interesting industry and accountant's job is seen attractive also in the future. (Figure 8)

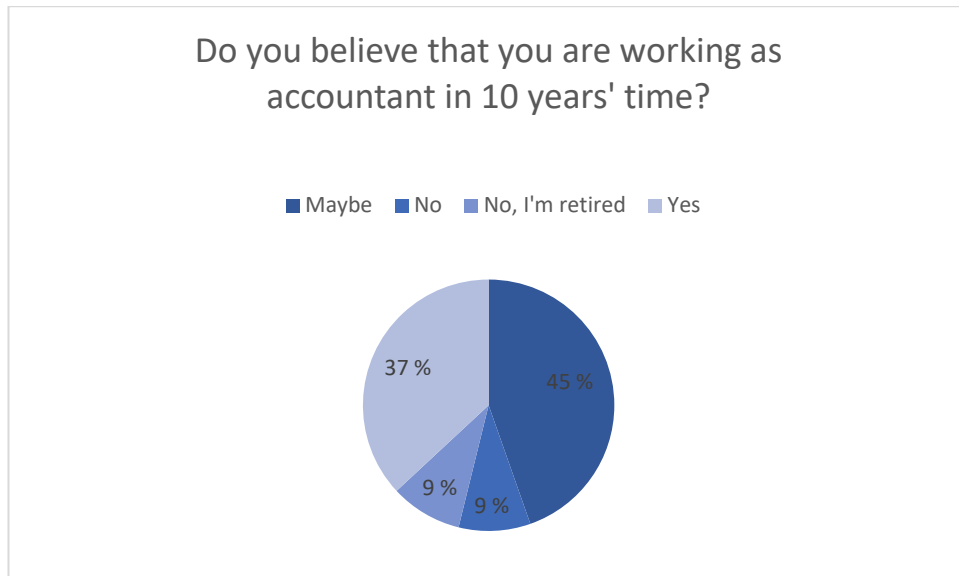


Figure 8. Respondents' belief working as accountant in 10 years' time. (N=65)

The last question was do you believe that the following things in accountant's job are going to increase, stay in the current level or decrease during the next 5-10 years. There was also option to answer I do not know.

Approximately half of the respondents think that the amount of customer contacts is going to stay in the current level and third of the respondents think the amount of customer contacts is going to increase. Accountant's job is changing from recorder to analyser so customer contacts are probably going to be more important because accountant needs to explain and analyse the periods to the customer.

Majority of the respondents assumed that the amount of manual work is decreasing in the future. The data is going to transfer bookkeeping through different channels automatically so it can be assumed that the manual work would decrease.

Majority of the respondents answered that analysing the periods is going to increase in account's job. When manual work decreases, accountant's job is probably going to include more and more analysing the data and explaining the results to the customer.

Approximately half of the respondents believe that the flexibility of the job is going to increase. For instance, it can be expected that the working hours and places can be chosen more freely because the material is in electronic form.

All the respondents assumed that teleworking is either going to increase or at least stay in the current level. None of the respondents think that it would decrease. Digitalised financial management makes it possible to work from home, for instance, if one has only internet connection and access to intranet.

Third of the respondents believe that the number of accountants is going to decrease in the industry and another third said it is going to stay in the current level. This question got the most "I don't know"- answers. Maybe the question was hard to answer or the respondents felt that the question was too sensitive because it might question if the respondents have a job in the future.

Nearly all respondents assumed that hurry in the job and job's responsibility is either increasing or staying in the current level. Accountant's job is sometimes quite hectic especially during the time when there are many closings of the books. Even though electronic financial management is faster and more automatized than traditional accounting, it still won't even the hectic and calmer times in the year.

Approximately half of the respondents think that competencies required in accountant's job is going to increase compared to the situation nowadays. When the work is moving towards analysing and customer service, one needs to have better understanding of the bigger picture and on the other hand accountant needs to know the details related to taxation, for instance because the customer assumes to get all information related to financial management from the accountant.

All in all, most of the answers to the last question were in line with other sources. The amount of analyses, flexibility and required competencies were the most likely assumed to increase. On the other hand, the amount of manual work is assumed to decrease.

3.3.2 Phase 2 of the research

In the second phase of the research the team leader of accounting team in VTP Oy Marko Ratilainen was interviewed. The interview questions were sent in email because it was the way that the interviewee preferred. The purpose of the interview was to get more detailed background information related to the topic. The interview was conducted in April 2017.

The first question was what kind of skills are required now from accountant and how the interviewee believes it can change in the future. The interviewee highlighted customer ser-

vice. Accountant should be proactive and have a holistic view of the financial management. He said that accounting is nowadays almost like a side product and the customer assumes that it is always done correctly. The added value comes from consulting the customer. He sees that the accountant's job is going more and more towards this way. His point of view is in line with most of the other research concerning the accountant's profession nowadays and in the future.

The second question was about disadvantages and advantages of digitalised financial management for accountant. Firstly, we will discuss about the disadvantages.

One of the disadvantages is that all the things related to accounting are not only in accountant's hands. This can cause feeling that one cannot control one's own job in the same way than before. There have been quite many new accountants in VTP recently so it was interesting that Ratilainen mentioned one disadvantages especially for newer accountants. For them it can be even harder to understand and control the bigger picture of the job because the job is quite shattered. Another disadvantage is that it is harder to influence one's own timetable in the job. The processes are defining more and more the timing and when one should do what tasks. These comments were the same that also were mentioned in the first phase of the research.

According to the interviewee one of the advantages of digitalised financial management is efficiency. The routine recording job has diminished massively and instead of that the accountant needs to make sure that all electronic information has transferred to bookkeeping. Ratilainen sees that even though accountant's job is nowadays more challenging, it is advantageous because it makes the job more meaningful. It was good that the interviewee brought also the point of view about the satisfaction in work and how the satisfaction can improve if the work tasks are more demanding.

The third question was how accountant's role has changed in relation to the customers during the time the interviewee has worked in the industry and how he sees this can change in the future.

He answered that when he came to work in VTP Oy, accountant did not comment the periods at all. The job was recording the material and efficiency was measured how quickly one could record materials to the system. When the books were closed yearly, there might have been some discussion with the customer. Ratilainen said that lot has changed during the past couple decades. He believes that the meaning of customer service and consulting are going to increase in the future. He mentioned that in order to be able to consult the

customer, accountant needs to understand customer's business and industry. This was interesting comment because it had not risen up previously in the research. Accountants should have a wider perspective on business and not only understand accounting.

The fourth question was concerning the accounting industry's future and how it will look like. Ratilainen answered that there has been discussion during the past 15 years that accountant's job is going to decrease. Some parts of accountant's job have disappeared but on the other hand new things have become a part of accountant's job. He does not believe that accountants' jobs are going to decrease significantly in the future. Instead he believes that the job description is going to keep changing as it has done during the past decades. This comment was in line with what other sources also claimed.

The last question concerned specifically VTP Oy and can the company utilise digitalised financial management or are there some development points.

VTP Oy has utilised digitalised financial management quite a lot compared with some other accounting firms. Still, Ratilainen believes that VTP Oy is going to increase the digitalised processes. He mentioned that one development point is to increase the digitalised processes in customer's end. The customers could utilise more digitalised solutions such as e-invoices to improve the efficiency. This change requires probably that accountants can advise the customers on how they can utilise the digitalised solutions better so the accountants should have a knowledge on different digitalised solutions.

3.3.3 Phase 3 of the research

The third phase of the research was conducted because it was important to get comments about future of the accounting industry. The data collection method was changed from interviews to desktop method due to lack of responses. This might have influenced the results.

In the article in Tilisanomat (Account news) people who had participated in training programme developing company services especially in the field of accounting told how accounting industry will probably change. Accountant needs still basic knowledge of accounting and the laws applied to it. Still, the most important thing what should be considered is how to create added value to the service. One of the products accounting firm could sell is consulting services regarding the business. Accounting offices should take

the customer into consideration and find ways to increase the profit of customer's business, for instance, by using the information accountant already has on the customer. (Tilisanomat)

The above-mentioned comments on the future of accounting industry indicate that in the future the range of required skills from accountant are going to increase. Accountant should focus more and more on to the customer and accounting firms should make tailored service packets for their customers if they want to be successful.

University of Lappeenranta and Saimaa university of applied science conducted a research about accounting industry's future. The results discussed how many of the accounting offices are changed depending on their customers' needs. The industry is becoming polarised and this is being explained by cost-efficiency. (Tilitehdas)

The results of their research revealed that one of the future challenge is how to serve the customers in a cost-effective way but at the same time keep the quality of the service. Competition in the industry is mainly causing this challenge. Another challenge of the industry is how get enough qualified staff. The accountant should understand both digitalisation and knowledge of accounting in the future. (Tilitehdas)

In the article in Accountor's website Accountor's head of outsourcing wrote that accountant's profession is changing but not going to disappear. In the future good service experience is creating the added value for the customer. She highlights that accountants should have a desire to learn new and have good communication skills. She advises that adapting to changes and updating own knowledge is the key to keep one's value in the working markets. (Accountor)

According to the CEO of Procountor Mikko Siivola the future professional of financial management is also professional of customer service. He claims that the meaning of human contacts is going to grow and the customers want to have trusted person who is responsible for their financial management. The accountants should be proactive and recommend solutions to customers' problems. (Tral)

All the above comments highlight that customer is the key to success. The offered services to the customer should be cost-effective but good quality. Another highlighted point was that accountants should update their knowledge continuously.

3.3.4 Summary of the results

All in all, most of the results were in line with each other. Accounting industry is in change but it does not mean that accountant's profession is disappearing. All the research phases gave added value to the research and different points of views about accountant's job description and the future of the accounting industry.

One key for successful future in the accounting industry is that accounting firms can find ways to create added value to the customers. Accounting firms needs to understand customer's needs and find ways to fulfil the needs.

In order to serve the customers better, accountants should update their knowledge. Accountants should also want to learn new. On the other hand, the responsibility lays also in schools that teach accounting. Education should be planned in a way that it serves the future needs.

4 Discussion

In this last chapter of the thesis research reliability and validity is analysed. Recommendations based on the results of the research are made. Also, there are some suggestions for follow-up research. The last subchapter presents reflection of learning.

4.1 Reliability and validity

The goal was to have answer rate of at least 40% from phase 1. The goal was exceeded and the answer rate was 65%. The overall number of accountants was known to be exactly 100 persons so the percentage could be calculated. Therefore, it can be said that the research in phase 1 is reliable.

For qualitative research the reliability was also quite good. The second phase of the research was aimed at VTP Oy and it was conducted successfully.

In the third phase of the research the data collection method was changed due to lack of responses. Desktop method gave reliable answers and there were few different sources to ensure the reliability. Still, if the planned data collection method would have been successful, the results might have had a different perspective. Also, the desktop material was collected from news and articles so it must be remembered that the comments are subjective.

Validity of the research was quite good because all in all the quality of the collected data was good. The results answered the question how accountant's job has changed and can change in the future. The questions for questionnaire were designed to answer the investigative questions.

The writer of this thesis is aware that if the interview in the second phase would have been face-to-face interview, it might have given even deeper answers. On the other hand, the interviewee understood the questions and has a deep knowledge of the processes in VTP Oy so it can be said that the answers provided good quality data.

The validity of the last phase of the research was quite good. The results gave answers to investigative questions. The validity could have been improved if the phase 3 would have succeeded as it was planned in the beginning.

4.2 Recommendations

As conclusion, there are some recommendations for accountants or students aiming at career in accounting and for accounting companies.

As mentioned before, the accounting industry is in constant change and it requires from accountants' ability and want to change and learn new. Accountants should understand that customer service and consulting skills are and will be important in the future so they should think how to improve these skills in order to do their job in a best possible way.

Accounting firms should provide training if needed to make sure that all the accountants are able to use all programmes and have the knowledge to serve the customers at their best. Another recommendation is that accounting firms should think how they can offer added value to their customers and ensure the continuity of the business also in the future.

Especially in VTP Oy they should develop some processes so that the accountants working there have the best possibilities to do their job well. VTP Oy should resolve problems related to technical issues always as soon as possible. This would help accountants to plan their work. Another recommendation for VTP Oy is that they should communicate their processes to the accountants so the accountants have a better understanding of the whole accounting process and where the data comes from.

One recommendation is aimed at schools. Education should be updated and fulfil the needs that accounting industry has in the future. For instance, it was mentioned that ICT skills are important so schools should offer courses where students can improve their ICT skills.

4.3 Follow-up research

It would be interesting to do a follow-up research after 5 or 10 years to see how the accounting industry has actually changed during that time and if the assumptions of the future were correct or not. The accounting industry is definitely changing but as mentioned before sometimes the changes happen in slower pace than expected.

Another possible topic for research related to this topic could be focused more on the future. This thesis research the current situation and the future so the future point of view could be research more by itself.

This thesis focused mainly on the changes caused by digitalisation. It would be interesting to conduct a follow-up research that would focus more on other factors changing accountant's job description.

4.4 Reflection of learning

The writer of this thesis learned new skills and got a deeper understanding of the future of accounting industry and accountant's job description. The writer learned how to find and limit the topic of the research and how to conduct research. It was good that the data was collected in different ways which taught the writer to find information in different ways and from different sources. It was useful to learn how to find the relevant information from vast data amount.

The thesis process taught how to create and obey timetable. This is also one development point for the future. The work load was weighted in the end and the hurry could have been avoided if the writer would have stayed better in the schedule.

The results of the thesis taught more about accountant's job which is useful for the writer of the thesis because she is working in the accounting industry. She is now able to use the information to learn the skills probably needed in the future career, for instance.

There were some challenges during the thesis process. The phase 3 of the research did not succeed as it was planned in the beginning and the writer of this thesis was forced to change the data collection method. At that point, it was useful that this risk was identified earlier so there was a back-up plan.

All in all, the thesis process was useful and it taught process management and skills how to conduct research.

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Appendices

Appendix 1. Questionnaire for accountants working in VTP Oy

Kysely VTP Oy:n kirjanpitäjille

Hei!

Olen Haaga-Helian opiskelija ja tilineuvoja VTP Oy:llä. Teen opinnäytetyötä aiheesta kirjanpitäjän työnkuvan muuttuminen sähköistymisen johdosta. Tutkin, kuinka sähköistyminen on vaikuttanut kirjanpitäjän työhön ja miten työnkuva voi muuttua tulevaisuudessa. Toivon, että sinulla olisi hetki aikaa vastata kyselyyni ja auttaa minua etenemään tutkimuksessani. Kyselyyn vastaamisessa menee noin 5 minuuttia. Kysely suoritetaan nimettömänä ja vastaukset käsitellään luottamuksellisesti.

Ystävällisin terveisin

Jenna Maukonen

*Pakollinen

Taustatiedot

1. Ikä *

Merkitse vain yksi soikio.

Alle 25 vuotta ☐

26-35 vuotta ☐

36-45 vuotta ☐

46-55 vuotta ☐

Yli 55 vuotta ☐

2. Sukupuoli *

Merkitse vain yksi soikio.

Nainen ☐

Mies ☐

3. Koulutus *

Merkitse vain yksi soikio.

- Merkonomi ☐
 Tradenomi ☐
 Kauppatieteiden
 kandidaatti ☐
 Kauppatieteiden
 maisteri ☐
 Muu: ☐

4. Kauan olet toiminut kirjanpitäjänä? * Merkitse vain yksi soikio.

- Alle 5 vuotta ☐
 5-10 vuotta ☐
 10-15 vuotta ☐
 15-20 vuotta ☐
 Yli 20 vuotta ☐

Työnkuva

5. Kuinka tärkeänä pidät seuraavia ominaisuuksia tai taitoja kirjanpitäjän ammatissa (asteikolla 1 ei ollenkaan tärkeä - 4 erittäin tärkeä)? * Merkitse vain yksi soikio riviä kohden.

| | 1 ei ollenkaan tärkeä | 2 hieman tärkeä | 3 tärkeä | 4 erittäin tärkeä |
|--------------------------------|--------------------------|-----------------------|-----------------------|-----------------------|
| Tarkkuus | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Täsmällisyys | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Luotettavuus | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Joustavuus | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Järjestelmällisyys | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Asiakaspalvelutaito | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Tietotekniset valmiudet | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Alaan liittyvä lainsäädäntö | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Analysointi | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Uuden omaksuminen | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Myyntitaito | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Työkokemus | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Tilinpäätösten laadinta | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Sosiaaliset taidot | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Kielitaito | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Stressin sietokyky | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Alan koulutus | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

6. Oletko tehnyt etätöitä? *

Merkitse vain yksi soikio.

Kyllä ☐

En ☐

7. Onko taloushallinnon sähköistyminen aiheuttanut haasteita henkilökunnalle? * Merkitse vain yksi soikio.

Kyllä merkittävästi ☐

Kyllä jonkin verran ☐

Ei ☐

En osaa sanoa ☐

8. Jos vastasit edelliseen kysymykseen kyllä, millaisia haasteita sähköistyminen on tuonut henkilöstölle?

9. Uskotko toimivasi kirjanpitäjänä 10 vuoden päästä? * Merkitse vain yksi soikio.

En, olen eläkkeellä ☐

Kyllä ☐

Ehkä ☐

En ☐

10. Uskotko seuraavien asioiden kirjanpitäjän työssä kasvavan, vähenevän vai pysyvän nykytasolla seuraavan 5-10 vuoden aikana? * Merkitse vain yksi soikio riviä kohden.

| | Kasvaa | Pysyy nykytasolla | Vähentyy | En osaa sanoa |
|---------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Asiakaskontaktit | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Manuaalinen työ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Kausien analysointi | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Työn joustavuus | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Etätyö | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Kirjanpitäjien lukumäärä alalla | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Kiire | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Työn vastuullisuus | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Työssä vaadittu osaaminen | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Appendix 2. Interview questions for phase 2

- Millaista osaamista kirjanpitäjältä edellytetään nyt? Miten uskot sen muuttuvan tulevaisuudessa? (What qualifications are required from accountant nowadays? How do you think it will change in the future)

- Mitä hyötyjä tai haittoja sähköisestä taloushallinnosta on mielestäsi kirjanpitäjälle? (What advantages or disadvantages you think there are for accountant because of digitalised financial management?)

- Kuinka kirjanpitäjän rooli on muuttunut suhteessa asiakkaisiin sinä aikana, kun olet ollut tilitoimistoalalla? Miten kirjanpitäjän rooli suhteessa asiakkaisiin voi mielestäsi muuttua tulevaisuudessa? (How accountant's role has changed in relation to customers during the time you have been in the accounting industry? How do you believe accountant's role in relation to customers can change in the future?)

- Millaisena näet tilitoimistoalan tulevaisuuden? (How do you see the accounting industry's future?)

- Pystytäänkö VTP:llä hyödyntämään sähköistä taloushallintoa vai voisiko joitain prosesseja vielä kehittää? Jos kehityskohteita mielestäsi löytyy, mitä ne voisivat olla? (Can VTP OY utilise digitalised financial management or are there some processes that could be developed? If there are some things that could be developed, what are those?)

Appendix 3. Interview questions for phase 3

- Millaista osaamista kirjanpitäjältä edellytetään nyt? Miten uskot sen muuttuvan tulevaisuudessa? (What qualifications are required from accountant nowadays? How do you think it will change in the future)
- Millaisena näet tilitoimistoalan tulevaisuuden? (How do you see the accounting industry's future?)